
Pension System as a Demographic Recession Factor

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Abstract:

The article analyses the distribution pension system impact on birth rate as a part of the demographic situation. The research methodology is an Austrian economic school methodology: apriorism, methodological individualism, subjectivism, researching the economic processes in the real time and the theory of capital as intermediate goods.

The working hypothesis of the article is the statement that the distribution pension system is a demographic crisis reason in the countries where it was introduced. These countries inevitably see the birth rate decrease; the fertility coefficient is reducing and eventually results in demographic recession.

Keywords: *Pension system, demographic recession, demographic crisis, birth rate decline, population decline.*

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Introduction

The article looks into the distribution pension system impact on birth rate. It is surprising that pension system analysis seldom considers the way the system influences on people's action. Usually it is analyzed if this or that kind of pension system can provide the necessary income level of the pensioners, and how financially sustainable this or that system is. The Austrian economic school methodology application allows analyzing the system impact on people's actions as well as social relation evolution and public morals using the economic science.

Literature review

A number of scientists have already voiced the hypothesis that pension system influences on the birth rate decrease. For example, in 1976 the demographer Borisov (1976) pointed out that birth rate is economically motivated, and "social insurance system development is decreasing the dependence of the ill and elderly people on a number of children or on their availability. The children, being a kind of insurance, are becoming unnecessary in the old age". Despite the importance of this idea for economics it has not been massively supported by scientists-economists. This fact causes regret, but not surprise, taking into account that a big part of the economists is employed by educational establishments controlled by state. Consequently most of their activity is scientific conclusions to ground the ideas beneficial for the state and the officials. The officials are unlikely to like the conclusion that negative trends in the society resulted from their activity.

Akparov (2012) and Geleransky (2013 and 2015) are to be singled out among the Russian researchers studying the interconnection of the pension system and birth rate. They consider it is necessary to establish a rigid connection between a number of children and their income and pensions of those who raised them. This measure is grounded by the logical analysis, i.e. a priori method. The mentioned above hypothesis was also logically analyzed by the author of this article (Vlasov, 2012; Galooyek *et al.*, 2014; Kossova *et al.*, 2014; Vovchenko *et al.*, 2017; Guskova *et al.*, 2016; Cristea and Thalassinou, 2016; Tsvetkov *et al.*, 2015). Besides it is necessary to mention Goncharova's research (2012) published in the Internet in 2012, where the impact of the pension system on the birth rate reduction on the basis of the statistical data is grounded.

Research Methods

To analyze this hypothesis the following methods are used.

Apriorism, logic method: all conclusions logically follow from the certain assumptions about human activity that do not require verification.

Methodological individualism: according this principle all results of human activity are to be explained or understood in terms of the individual's actions. Any social phenomenon is a result of conscious choice of a number of people. This method is

also connected with the induction method and apriorism because it means logical transition from private to general.

Subjectivism: This method means that it is necessary to analyze human activity or institutions on the basis of that subjective significance that an analyzed individual applies to this action. This principle suggests that those goals and means the individual chooses are subjective, but it is a rational choice, because a person chooses the most suitable from his/her point of view means to achieve its subjective goals. Consideration of economic processes in the real time means, that consequences of any taken decisions and people's actions are not manifested instantly but in the course of time. On the other hand, people are able to analyze the results of the past actions and correct their future actions. It results in rational models of behavior due to the fact that resources are limited in relation to people's endless needs, but people are able to learn from their own mistakes.

Consideration of processes in the real time also suggests that imposed social institutions such as pension system in the course of time distorts the individuals' rational choice, who due to the pressure of rationality cannot take into account those incentives the introduced system gives them. In other words the individuals adapt their behavior adjusting it to the "artificial" (imposed) reality forced by the state. Those individuals who due to the subjective reasons refuse to adapt their behavior to the changed reality turn out to be less effective from the other society members' views.

Austrian capital theory: According to the Austrian economic school, capital means any intermediate phase of human activity (De Soto, 2008). Human activity is always purposeful. Any person determines his/her own goals and means. "Goals and means are not "given" but they appear from people's entrepreneurial activity" (De Soto, 2008; Pociovalisteanu and Thalassinou, 2008). Several stages are often involved to achieve the goal, each of which forms an intermediate good. This good is not able to satisfy the final human need, but it is valuable because it helps achieve the ultimate goal. The capital good is an intermediate good needed to achieve the ultimate goal.

Results

1. The impact of the distribution pension system on the economic incentives for the population reproduction

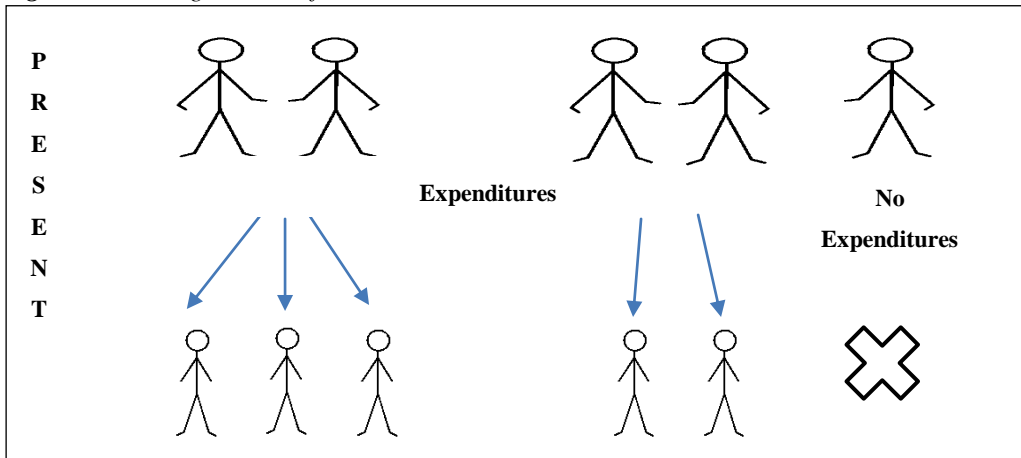
The distribution pension system is a pension system where the fees paid by the employed citizens are the source of pension payments. In other words the funds paid by the working people are not invested but are used to pay current pensions. Such system is based on the violent confiscation and redistribution of the funds among the citizens. The institution of the distribution pension system has not appeared due to spontaneous social development (the institution of exchange, money, market economy, etc appeared in such a way) but was imposed by the state. Due to this fact this institution can be called an artificially developed by humans. It dates back to the early XX century which means that in terms of history it is rather recent. The institution has been functioning only last hundred years, while human history counts

several thousand years. To understand how pension system has influenced the family institution and birth rate in particular it is necessary to analyze social relations before the artificial introduction of the pension system.

One of the reasons of the wrong assessment of the consequences of the distribution pension system is that the analyzed society is represented by two classes: working people and pensioners. This methodology, formed by the XIX century economists, rigidly divides the society into classes excluding the fact that the individual's role can change. But what is more important, it does not take into account the development of any processes in the course of time (but this very fact brings about the change of the individual's role). The reason of the mistaken conclusions in relation to the social consequences of the pension systems resulted mainly from the methodological mistakes. The use of the Austrian economic school methodology allows presenting the society not just as aggregate of the interacting classes but as constantly changing in time people's generations. The number of each present generation is a result of choice and purposeful actions of the past generations. And the number of future generations will be the consequences of the people's actions at present.

Each person independently takes a decision whether to start a family or not and how many children to rise. As any activity the formation of the future generations demand certain expenditures, i.e. the use of the resources to achieve other goals. Thus, the future generation formation requires the refusal from meeting other objectives. On the other hand, there is an objective reality where a person cannot remain able-bodied for the whole life, i.e. there will be an inevitable period when a person will not be able to provide the needs with his/her labor.

Figure 1. *Future generation formation*

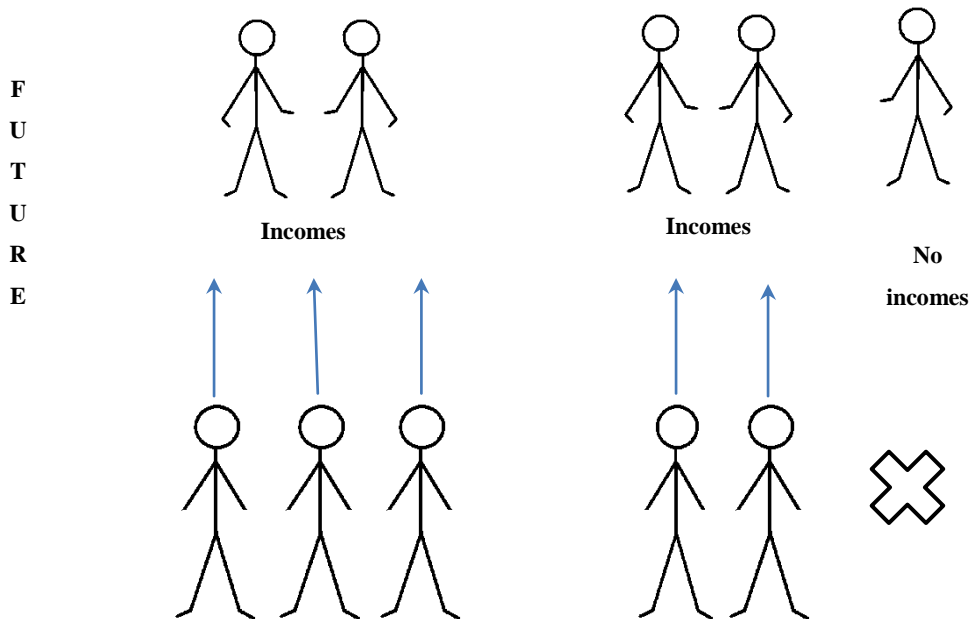


Before the pension system introduction a person took independent decisions about how many children to bring up. There are no doubts that this choice has always

influenced a set of factors, one of which is that under the absence of the pension system a big number of children is a guarantee of the decent old age. Bringing up the children demands of long-term costs and inevitably means lower standards of life and material prosperity at working age. However a person knew that having reached the age of incapacity for work, he/she could rely on either on the family support, or on charity.

A big number of children and low level of life at present (all else being equal) meant security in old age. The more the children the more income in the future. It is important to mention that in this case not only a number of children will be significant, but their “quality” as well: the ability to be the full-fledged member of the society, the ability to work productively and possess moral qualities. Bringing up people with these quality means society reproduction.

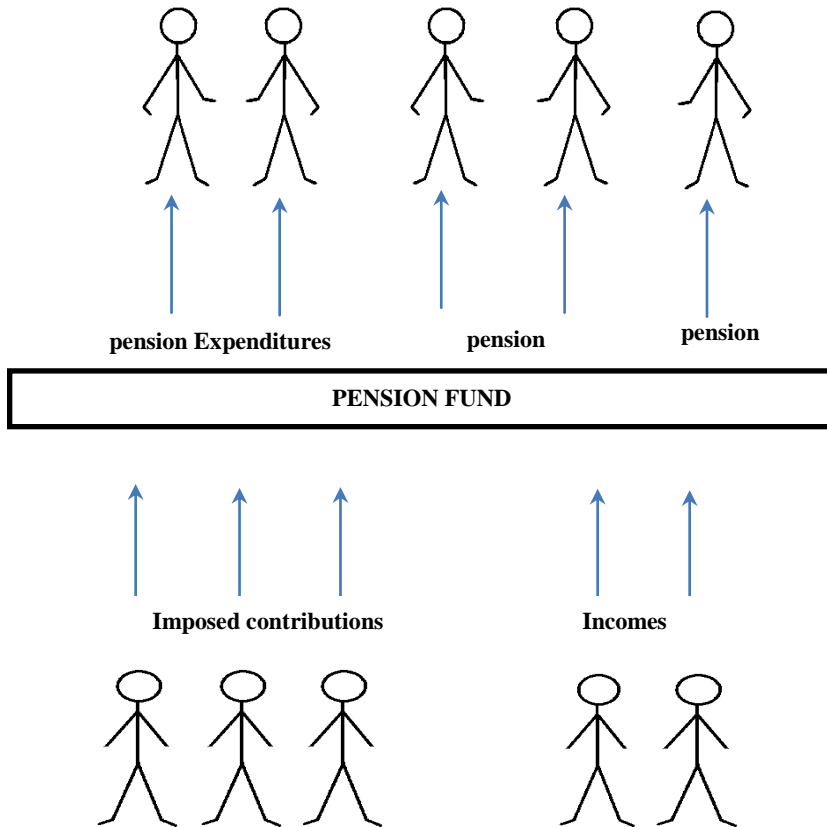
Figure2. Maintenance of the elderly



In fact in the places where there is no distribution pension system the formation of the future generation, i.e. bringing up children, is a kind of investment process. Investments are aimed at getting profits. With both expenditures and revenues are not only monetary spendings, but non-monetary ones as well. This activity as any investment process is risky, both profits and losses are possible. The success depends on a number of circumstances which are to be foreseen.

There are no any moral reasons to transfer a part of the working people’s income to other members of the society, but not their parents. However the distribution system completely removes the connection between today’s expenses and future income.

Figure 3. *Distribution pension system*



The distribution pension system suggests that the state pension fund interferes in the relations among people of different generations and what is notable only at the stage of gaining the income from the investments into the future generation.

The main principles of the distribution pension system are:

- compulsory and mandatory contributions of the working population;
- pension payments to all who have reached a certain age;
- differentiated pension payments depending on criteria established by the state: working experience, the amount of income during the working life, etc.

The state distribution system breaks the link between a number of children, their abilities and the income that pensioners get, because it is based on the “solidarity of generations” principle, i.e. strict class division: the working and the pensioners. Pension criteria and differentiation principle completely changed the incentive system after the pension system had been introduced. The main factors influencing the amount of pension are working experience and salary during the working life. The longer the working life the higher the salary and the bigger the pension are. But due to the limited resources a person has to choose among different options of

actions. The family is both resource and time consuming. But under the pension system these costs do not result in a person's good financial position after retirement. Vice versa, those not having families spend more time on work and career, and will have better pension. On the other hand, those spending more time on career have better income in present in comparison with those spending a part of time on the family. Thus, bringing up children provides any advantages neither in present nor in the future.

Table 1. Comparison of the incentive system

	Absence of the pension system		Presence of the pension system	
	Children	No children	Children	No children
Before old age	Reduces present consumption level	Excludes additional expenses enabling to maximize consumption level or savings	Reduces present consumption level	Excludes additional expenses enabling to maximize consumption level or savings
After old age	Increases the consumption level in the old age due to the help of family members	Possibility to exist only at the expenses of savings or charity	Reduces pension if a person spends a part of time on family rather than on career	Increases the pension if a person spends more time on career
incentives	More incentives for families and children		Less incentives for families and children, More incentives for career	

The childless pensioners are at the most advantageous position, because they started to get pensions at the expenses of the children who were brought up by other society members. Before the pension system was introduced they had been in the worst position. The pension system introduction allowed the people who did not participate in the future generation formation to get income at other people's expense, i.e. gain income without any expenses.

1. Population reproduction as an investment process whose intermediate goal is to form human capital

Human capital is physical and intellectual abilities to work productively. In this research each generation is considered as an available human capital and an individual as a capital good. As any capital good an individual has a finite life and a period of "usefulness". Consequently bringing up a new generation is a capital good formation, investments.

Thus, it is possible to single out simple, expanded and narrowed human capital reproduction. Economic laws and economic rationality have always influenced on

people reproduction. The key issues are why the capital is reproduced and under what conditions there is simple, expanded or narrowed capital reproduction.

The capital goods formation process is based on economic rationality. A capital good is an intermediate stage of the human activity. A capital good itself is not valuable for a person, because it does not satisfy the end need. It allows to produce the end goods to satisfy such needs.

Capital formation is possible under the full protection of the property rights. The lack of right to get income from the property always limits the capital formation. The economic ingredient of the future generation formation process is getting income in the old age in the form of their children's help. While choosing this or that investment an individual analyzes pros and cons of different alternatives. As it was mentioned above, the imposed distribution pension system has distorted the incentive system of the human capital formation process, which inevitably results in the narrowed human capital reproduction.

Before the pension system was introduced a person could choose: whether to invest into the human capital, in children, or to invest into the tangible capital in different forms. His/her choice was based both on the expected limited income and on the inherent risks. Market system, "invisible market hand" gave a person more rational model of actions. The insufficiency of physical capital actually means human capital surplus. Under such conditions the expected profit from the investments in the physical capital will be higher than the investments into the human one. Otherwise with the insufficiency of physical capital it is more advantageous to have family and children. "The invisible hand" strives to remove the existing disproportions in productivity. However the pension system introduction at least distorted the existing order. The investment process now is directed only towards physical capital. Thus, the pension system institution introduction has changed the institutional environment and distorted the incentive system.

2. Pension system impact on the family institution

It is possible to contradict to the mentioned above argument because the old people support has always been voluntarily. It has never been regulated by the state laws, but has always been controlled by moral norms. It is not banned to have many children who will support the old family members. That is why it is not correct to speak about destruction of the incentive system to reproduce the human capital. Is it possible to argue that the state pension complemented the existing system to support the old people? This statement contradicts the main thesis of economics, i.e. limited resources, to pay pensioners necessary resources whose only source is productive labor of the working people, i.e. working family members. "The burden of the so-called social achievements is on the net wage rates for employees. No matter if the employer has the right to deduct contributions from salaries paid either in cash or not, in favor of different social security funds. In any case the burden of these contributions is on the workers, but on the employers" (Mises, 1996). In other words, state pensions result in salaries reduction because the funds, which the

employers can pay as salaries and contributions to the social funds is not endless. The contributions to the social funds reduce the funds for the salaries. Thus, the imposed pension system resulted in relative reduction of the salaries, and consequently, reduced the funds that remain in the family and can be invested to reproduce the future generation.

Another important point is the impact the state pension system has on the family institution. Any family is based on mutual collaboration. The young support the elderly, the old ones bring up grandchildren. The pension system introduction has liquidated this interdependence and collaboration, because the old family members stopped being dependant on the working family members and consequently are not motivated to take part in grandchildren's upbringing. It is obvious that pension system is destructing the family institution.

Discussion

Thus, the conducted research has proved that our hypothesis about that the state distribution pension system promoted the birth rate reduction. We have proved it on the basis of the following conclusions:

1. The distribution pension system destructs the economic incentives to reproduce population.
2. The population reproduction is an investment process whose intermediate objective is to form the human capital on the form of the future generation, and its end objective is to get income in the old age. The distribution pension system introduction reduced the value of the end objective (income in the old age), and consequently resulted in economic inexpediency of the future generation formation the intermediate objective of the investment process.
3. The pension system deprives the population of the resources needed to form the future generation and promotes the family institution destruction.

Conclusion

On the basis the conducted research it is possible to conclude that the imposed state distribution pension system is not the institution promoting the society development. On the contrary, it has a destructive impact on the naturally formed social relations resulting in the distortion of the demographic processes in the society.

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